REFERENCES 77

[47] R. M. Tsoupidi, M. Balliu, and B. Baudry, "Vivienne: Relational verification of cryptographic implementations in webassembly," in 2021 IEEE Secure Development Conference (SecDev), pp. 94–102, 2021.

- [48] Q. Stiévenart and C. De Roover, "Wassail: a webassembly static analysis library," in *Fifth International Workshop on Programming Technology for the Future Web*, 2021.
- [49] F. Breitfelder, T. Roth, L. Baumgärtner, and M. Mezini, "Wasma: A static webassembly analysis framework for everyone," in 2023 IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER), pp. 753–757, 2023.
- [50] W. Fu, R. Lin, and D. Inge, "Taintassembly: Taint-based information flow control tracking for webassembly," arXiv preprint arXiv:1802.01050, 2018.
- [51] D. Lehmann, M. T. Torp, and M. Pradel, "Fuzzm: Finding memory bugs through binary-only instrumentation and fuzzing of webassembly," arXiv preprint arXiv:2110.15433, 2021.
- [52] Q. Stiévenart, D. Binkley, and C. De Roover, "Dynamic slicing of webassembly binaries," in 39th IEEE International Conference on Software Maintenance and Evolution, IEEE, 2023.
- [53] Q. Stiévenart, D. W. Binkley, and C. De Roover, "Static stack-preserving intra-procedural slicing of webassembly binaries," in *Proceedings of the 44th International Conference on Software Engineering*, ICSE '22, (New York, NY, USA), p. 2031–2042, Association for Computing Machinery, 2022.
- [54] D. Lehmann and M. Pradel, "Wasabi: A framework for dynamically analyzing webassembly," in Proceedings of the Twenty-Fourth International Conference on Architectural Support for Programming Languages and Operating Systems, pp. 1045–1058, 2019.
- [55] S. Narayan, C. Disselkoen, D. Moghimi, S. Cauligi, E. Johnson, Z. Gang, A. Vahldiek-Oberwagner, R. Sahita, H. Shacham, D. Tullsen, and D. Stefan, "Swivel: Hardening WebAssembly against spectre," in 30th USENIX Security Symposium (USENIX Security 21), pp. 1433–1450, USENIX Association, Aug. 2021.
- [56] M. Kolosick, S. Narayan, E. Johnson, C. Watt, M. LeMay, D. Garg, R. Jhala, and D. Stefan, "Isolation without taxation: Near-zero-cost transitions for webassembly and sfi," Proc. ACM Program. Lang., vol. 6, jan 2022.
- [57] E. Johnson, E. Laufer, Z. Zhao, D. Gohman, S. Narayan, S. Savage, D. Stefan, and F. Brown, "Wave: a verifiably secure webassembly sandboxing runtime," in 2023 IEEE Symposium on Security and Privacy (SP), pp. 2940–2955, 2023.

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[58] M. Musch, C. Wressnegger, M. Johns, and K. Rieck, "New kid on the web: A study on the prevalence of webassembly in the wild," in Detection of Intrusions and Malware, and Vulnerability Assessment: 16th International Conference, DIMVA 2019, Gothenburg, Sweden, June 19–20, 2019, Proceedings 16, pp. 23–42, Springer, 2019.

- [59] R. K. Konoth, E. Vineti, V. Moonsamy, M. Lindorfer, C. Kruegel, H. Bos, and G. Vigna, "Minesweeper: An in-depth look into drive-by cryptocurrency mining and its defense," in *Proceedings of the 2018 ACM SIGSAC Conference on Computer and Communications Security*, pp. 1714–1730, 2018.
- [60] A. Romano, Y. Zheng, and W. Wang, "Minerray: Semantics-aware analysis for ever-evolving cryptojacking detection," in *Proceedings of the 35th IEEE/ACM International Conference on Automated Software Engineering*, pp. 1129–1140, 2020.
- [61] F. N. Naseem, A. Aris, L. Babun, E. Tekiner, and A. S. Uluagac, "Minos: A lightweight real-time cryptojacking detection system.," in *NDSS*, 2021.
- [62] W. Wang, B. Ferrell, X. Xu, K. W. Hamlen, and S. Hao, "Seismic: Secure inlined script monitors for interrupting cryptojacks," in Computer Security: 23rd European Symposium on Research in Computer Security, ESORICS 2018, Barcelona, Spain, September 3-7, 2018, Proceedings, Part II 23, pp. 122–142, Springer, 2018.
- [63] J. D. P. Rodriguez and J. Posegga, "Rapid: Resource and api-based detection against in-browser miners," in *Proceedings of the 34th Annual Computer Security Applications Conference*, pp. 313–326, 2018.
- [64] A. Kharraz, Z. Ma, P. Murley, C. Lever, J. Mason, A. Miller, N. Borisov, M. Antonakakis, and M. Bailey, "Outguard: Detecting in-browser covert cryptocurrency mining in the wild," in *The World Wide Web Conference*, pp. 840–852, 2019.
- [65] S. Bhansali, A. Aris, A. Acar, H. Oz, and A. S. Uluagac, "A first look at code obfuscation for webassembly," in *Proceedings of the 15th ACM Conference on Security and Privacy in Wireless and Mobile Networks*, WiSec '22, (New York, NY, USA), p. 140–145, Association for Computing Machinery, 2022.
- [66] D. Genkin, L. Pachmanov, E. Tromer, and Y. Yarom, "Drive-by key-extraction cache attacks from portable code," IACR Cryptol. ePrint Arch., vol. 2018, p. 119, 2018.
- [67] G. Maisuradze and C. Rossow, "Ret2spec: Speculative execution using return stack buffers," in *Proceedings of the 2018 ACM SIGSAC Conference on Computer and Communications Security*, CCS '18, (New York, NY, USA), p. 2109–2122, Association for Computing Machinery, 2018.